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| 10/009,126 | 11/07/2001 | Bertrand Des Clers | 9997.37USWO | 5551 |
| 23552 | 7590 | 01/10/2005 | EXAMINER | |
| MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903 | | | NGUYEN, HUNG T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2636 | |

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,126

Applicant(s)

DES CLERS, BERTRAND

Examiner

Hung T. Nguyen

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/2/04 & 1/4/05.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-15 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
 4) ☒ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. 1/4/05.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.84(o) which requires legends on drawings:
--In figs.1-2, All the number in the boxes 1, 5-9, 11-12, 14-16, 18 & 20-22 should be provided with descriptive labels (e.g., silo, sensors, analyzer, recorder, central processing unit, etc). Correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webber et al. (WO 98/18001) in view of Uto et al. (U.S. 5,886,625).

Regarding claim 1, Webber discloses a process for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10,

Art Unit: 2636

col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Webber does not specifically mention a fuel tank optionally incorporated in a vehicle.

Uto describes a process for preventing a risk of pressure may explore in which a temperature is measured in a sample holding container as a fuel tank (9) in a vehicle and in which the critical moment is determined both on the basic of a time which has elapsed and comparing the measured temperature with the critical temperature [figs.1-7, col.2, line 57 to col.4, line 60].

Therefore, it would have been obvious to one having ordinary skill in the art to employ the teaching of Uto in the system of Webber for providing / identifying accurate the timing source of the danger signals to a user as to prevent an explosion of the atmosphere of the fuel tank in the vehicle.

Regarding claim 2, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas, fuel is used in the vehicle engine [col.25, lines 8-40 and abstract].

However, those skilled in the art will recognize that chemical materials can be realize in several ways may include chemical fertilizers or ammonium nitrates or other fields such as coal dust, animal, plant meals and so on.

Regarding claim 3, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas, fuel is used in the vehicle engine [col.3, lines 7-15 & col.25, lines 8-40 and abstract].

Art Unit: 2636

Regarding claim 4, Uto describes the process for preventing a risk of pressure may explore in which a temperature is measured in a sample holding container as a fuel tank (9) in a vehicle [figs.1-7, col.2, line 57 to col.4, line 60].

Regarding claims 5-6, Webber discloses the process for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time without a human intervention [figs.1-3, 5-7, col.1, lines 24-36, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Regarding claim 7, Webber discloses the process for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Webber does not specifically mention a fuel tank optionally incorporated in a vehicle.

Uto describes a process for preventing a risk of pressure may explore in which a temperature is measured in a sample holding container as a fuel tank (9) in a vehicle and in which the critical moment is determined both on the basic of a time which has elapsed and comparing the measured temperature with the critical temperature [figs.1-7, col.2, line 57 to col.4, line 60].

Therefore, it would have been obvious to one having ordinary skill in the art to have the teaching of Uto in the system of Webber for providing / identifying accurate the timing source of the danger signals to a user as to prevent an explosion of the atmosphere of the fuel tank in the vehicle.

Regarding claim 8, Webber discloses the process for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Regarding claims 9-10, Both Webber & Uto disclose the atmosphere comprises the chemical material is a petroleum spirit as natural gas, fuel is used in the vehicle engine is contact with oxygen or air [col.3, lines 7-15 & col.25, lines 8-40 and abstract].

Art Unit: 2636

Regarding claim 11, Both Webber & Uto disclose the atmosphere comprises the chemical material is a petroleum spirit as natural gas, fuel is used in the vehicle engine is in contact with a surface of semi confined bulk storage [col.3, lines 7-15 & col.25, lines 8-40 and abstract].

Regarding claim 12, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas, fuel is used in the vehicle engine [col.25, lines 8-40 and abstract].

However, those skilled in the art will recognize that chemical materials can be realize in several ways may include chemical fertilizers or ammonium nitrates or other fields such as coal dust, animal, plant meals and so on.

Regarding claim 13, Uto discloses the fuel tank in the vehicle must contain gas, fuel is used in the vehicle engine [col.1, lines 7-10 and abstract].

Regarding claim 14, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas, fuel is used in the vehicle engine [col.25, lines 8-40 and abstract].

However, those skilled in the art will recognize that chemical materials can be realize in several ways may include a fuel tank is used in aircraft, boat or mechanical engines.

Regarding claim 15, Webber discloses the process for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the

Art Unit: 2636

invention is carried out by measuring pressure and temperatures of gas in a vary of time without a human intervention [figs.1-3, 5-7, col.1, lines 24-36, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Arguments & Responses

4. Applicant's argument filed on Dec. 02, 2004 have been fully considered but they are not persuasive reasons.

Applicant's Arguments:

A) The applicant states that the system of Webber fails to disclose the limitations in claim 1.

B) The references of Webber & Uto do not teach measuring a temperature of mixture from a time of creation of the atmosphere.

C) No references suggest an induction time before spontaneous ignition and explosion is determined through a measurement of an initial temperature of the atmosphere at a time of creation of the atmosphere.

Response to the arguments:

A) Webber does not specifically disclose exactly the limitations as claimed in the claim 1.

However, the Webber's reference does teach the function of the system for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

B) The reference of Webber does teach measuring a temperature of mixture from a time of creation of the atmosphere in a form of the process for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

C) Webber discloses the process for preventing a risk of explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere or exploding / the invention is carried out

Art Unit: 2636

by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Nguyen whose telephone number is (571) 272-2982. The examiner can normally be reached on Monday to Friday from 8:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass, Jeffery can be reached on (571) 272-2981. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

A handwritten signature in black ink, appearing to read "Hung T. Nguyen". The signature is written in a cursive, flowing style with a large initial "H" and a long, sweeping underline.

Examiner: Hung T. Nguyen

Date: Jan. 5, 2005